IN THE CLAIMS

Claim 1 (currently amended): A power selection circuit for use with a plurality of voltage sources, comprising:

a comparator configured to compare a first voltage provided by a first voltage source with a second voltage provided by a second voltage source;

control circuitry including cross-coupled logic circuits having only a first and second logic level each having a fixed voltage level having first and second outputs, the cross-coupled logic circuits being configured, in the event the first voltage is greater than the second voltage, to provide said first logic level at the first output and said ~~level and~~ second logic level at the second output, and, in the event the second voltage is greater than the first voltage, to provide the second logic level at the first output and the first logic level at the second output, the second logic level being opposite to the first logic level; and

first and second switching elements, the first switching element being configured to provide the first voltage as an output voltage when the first logic level is provided at the first output, and the second switching element being configured to provide the second voltage as the output voltage when the first logic level is provided at the second output.

Claim 2 (previously presented): A power selection circuit for use with a plurality of voltage sources, comprising:

a comparator configured to compare a first voltage provided by a first voltage source with a second voltage provided by a second voltage source;

control circuitry including cross-coupled logic circuits having first and second outputs, the cross-coupled logic circuits being configured, in the event the first voltage is greater than the second voltage, to provide a first logic level at the first output and a second logic level at the second output, and, in the event the second voltage is greater than the first voltage, to provide the second logic level at the first output and the first logic level at the second output, the second logic level being opposite to the first logic level; and

first and second switching elements, the first switching element being configured to provide the first voltage as an output voltage when the first logic level is provided at the first output, and the second switching element being configured to provide the second voltage as the output voltage when the first logic level is provided at the second output,

further comprising a resistor array including at least two first resistors and at least two second resistors, the first resistors being connected in series between the first voltage and a first node of the circuit and the second resistors being connected in series between the second voltage and the first circuit node, common nodes of the first and second resistors being connected to first and second inputs, respectively, of the comparator, the resistor array being configured to provide symmetric trip voltages to the comparator inputs.

Claim 3 (original): The power selection circuit of claim 2 wherein the resistor array is configured to vary the values of at least one of the first resistors and at least one of the second resistors based on an output level of the comparator to assure that the symmetric trip voltages are provided to the comparator with hysteresis.

Claim 4 (original): The power selection circuit of claim 2 further including a first diode connected in series with the first resistors and a second diode connected in series with the second resistors, the first diode being back-biased when the second voltage is greater than the first voltage and the second diode being back-biased when the first voltage is greater than the second voltage, thereby blocking cross-conduction of current between the first and second voltage sources through the resistor array.

Claim 5 (original): The power selection circuit of claim 1 wherein the cross-coupled logic circuits are configured to provide non-overlapping first and second logic levels to block cross-conduction of current between the first and second voltage sources through the cross-coupled logic circuits.

Claim 6 (original): The power selection circuit of claim 1 wherein the cross-coupled logic circuits each include at least one logic gate configured to provide the first and second logic levels to the first and second outputs, each logic gate having pull-down and pull-up switching transistors with respective aspect ratios, wherein the aspect ratio of the pull-down switching transistor is greater than the aspect ratio of the pull-up switching transistor, thereby reducing current spikes when providing the first and second logic levels.

Claim 7 (previously presented): A power selection circuit for use with a plurality of voltage sources, comprising:

a comparator configured to compare a first voltage provided by a first voltage source with a second voltage provided by a second voltage source;

control circuitry including cross-coupled logic circuits having first and second outputs, the cross-coupled logic circuits being configured, in the event the first voltage is greater than the second voltage, to provide a first logic level at the first output and a second logic level at the second output, and, in the event the second voltage is greater than the first voltage, to provide the second logic level at the first output and the first logic level at the second output, the second logic level being opposite to the first logic level; and

first and second switching elements, the first switching element being configured to provide the first voltage as an output voltage when the first logic level is provided at the first output, and the second switching element being configured to provide the second voltage as the output voltage when the first logic level is provided at the second output,

wherein the first and second switching elements have associated negative temperature coefficients, and the power selection circuit further includes a band-gap reference configured to track the negative temperature coefficients associated with the first and second switching elements.

Claim 8 (currently amended): A method of operating a power selection circuit usable with a plurality of voltage sources, comprising the steps of:

comparing a first voltage provided by a first voltage source with a second voltage provided by a second voltage source by a comparator;

in the event the first voltage is greater than the second voltage, providing a first logic level at a first output and a second logic level at a second output by control circuitry including cross-coupled logic circuits having only a first and second logic level each having a fixed voltage level;

in the event the second voltage is greater than the first voltage, providing the second logic level at the first output and the first logic level at the second output by the control circuitry including the cross-coupled logic circuits, the second logic level being opposite to the first logic level;

providing the first voltage as an output voltage when the first logic level is provided at the first output by a first switching element; and

providing the second voltage as the output voltage when the first logic level is provided at the second output by a second switching element.

Claim 9 (previously presented): A method of operating a power selection circuit usable with a plurality of voltage sources, comprising the steps of:

comparing a first voltage provided by a first voltage source with a second voltage provided by a second voltage source by a comparator;

in the event the first voltage is greater than the second voltage, providing a first logic level at a first output and a second logic level at a second output by control circuitry including cross-coupled logic circuits;

in the event the second voltage is greater than the first voltage, providing the second logic level at the first output and the first logic level at the second output by the control circuitry including the cross-coupled logic circuits, the second logic level being opposite to the first logic level;

providing the first voltage as an output voltage when the first logic level is provided at the first output by a first switching element; and

providing the second voltage as the output voltage when the first logic level is provided at the second output by a second switching element,

further including the step of providing symmetric trip voltages to first and second inputs of the comparator by a resistor array, the resistor array including at least two first resistors and at least two second resistors, the first resistors being connected in series between the first voltage and a first node of the circuit and the second resistors being connected in series between the second voltage and the first circuit node, and common nodes of the first and second resistors being connected to the first and second inputs, respectively, of the comparator.

Claim 10 (original): The method of claim 9 wherein the fifth providing step includes varying the values of at least one of the first resistors and at least one of the second resistors based on an output level of the comparator by the resistor array to assure that the symmetric trip voltages are provided to the comparator with hysteresis.

Claim 11 (original): The method of claim 9 further including the step of blocking cross-conduction of current between the first and second voltage sources through the resistor array by first and second diodes, the first diode being connected in series with the first resistors and the second diode being connected in series with the second resistors, and the first diode being back-biased when the second voltage is greater than the first voltage and the second diode being back-biased when the first voltage is greater than the second voltage.

Claim 12 (original): The method of claim 8 wherein the first and second logic levels provided at the first and second outputs in the first and second providing steps are non-overlapping, thereby blocking cross-conduction of current between the first and second voltage sources through the cross-coupled logic circuits.

Claim 13 (original): The method of claim 8 wherein each of the first and second providing steps includes providing the first and second logic levels to the first and second outputs by respective logic gates included in the cross-coupled logic circuits,

each logic gate having pull-down and pull-up switching transistors with respective aspect ratios, wherein the aspect ratio of the pull-down switching transistor is greater than the aspect ratio of the pull-up switching transistor, thereby reducing current spikes when providing the first and second logic levels.

Claim 14 (previously presented): A method of operating a power selection circuit usable with a plurality of voltage sources, comprising the steps of:

comparing a first voltage provided by a first voltage source with a second voltage provided by a second voltage source by a comparator;

in the event the first voltage is greater than the second voltage, providing a first logic level at a first output and a second logic level at a second output by control circuitry including cross-coupled logic circuits;

in the event the second voltage is greater than the first voltage, providing the second logic level at the first output and the first logic level at the second output by the control circuitry including the cross-coupled logic circuits, the second logic level being opposite to the first logic level;

providing the first voltage as an output voltage when the first logic level is provided at the first output by a first switching element; and

providing the second voltage as the output voltage when the first logic level is provided at the second output by a second switching element,

further including the step of tracking negative temperature coefficients associated with the first and second switching elements by a band-gap reference.

Claim 15 (original): A power selection circuit for use with a plurality of voltage sources, comprising:

a comparator configured to compare a first voltage provided by a first voltage source with a second voltage provided by a second voltage source, the first and second voltages being provided with hysteresis having a negative temperature coefficient; and

output circuitry configured to provide the first voltage as an output voltage in the event the first voltage is greater than the second voltage, and to provide the second

voltage as the output voltage in the event the second voltage is greater than the first voltage.

Claim 16 (previously presented): A power selection circuit for use with a plurality of voltage sources, comprising:

a comparator configured to compare a first voltage provided by a first voltage source with a second voltage provided by a second voltage source, the first and second voltages being provided with hysteresis having a negative temperature coefficient; and

output circuitry configured to provide the first voltage as an output voltage in the event the first voltage is greater than the second voltage, and to provide the second voltage as the output voltage in the event the second voltage is greater than the first voltage,

further comprising a resistor array including at least two first resistors and at least two second resistors, the first resistors being connected in series between the first voltage and a first node of the circuit and the second resistors being connected in series between the second voltage and the first circuit node, common nodes of the first and second resistors being connected to first and second inputs, respectively, of the comparator, the resistor array being configured to provide symmetric trip voltages corresponding to the first and second voltages to the comparator inputs.

Claim 17 (original): The power selection circuit of claim 16 wherein the resistor array is configured to vary the values of at least one of the first resistors and at least one of the second resistors based on an output level of the comparator to assure that the symmetric trip voltages are provided to the comparator with hysteresis.

Claim 18 (original): The power selection circuit of claim 15 wherein the first and second voltages comprise symmetric trip voltages.

Claim 19 (original): A method of operating a power selection circuit usable with a plurality of voltage sources, comprising the steps of: comparing a first voltage provided by a first voltage source with a second voltage provided by a second voltage

source by a comparator, the first and second voltages being provided with hysteresis having a negative temperature coefficient;

in the event the first voltage is greater than the second voltage, providing the first voltage as an output voltage by output circuitry; and

in the event the second voltage is greater than the first voltage, providing the second voltage as the output voltage by the output circuitry.

Claim 20 (original): The method of claim 19 further including the step of providing symmetric trip voltages corresponding to the first and second voltages to the comparator inputs.

Claim 21 (original): A power selection circuit for use with a plurality of voltage sources, comprising:

a comparator configured to compare a first voltage provided by a first voltage source with a second voltage provided by a second voltage source, the first and second voltages being provided with hysteresis having a predetermined magnitude;

a band-gap reference configured to set the magnitude of the hysteresis; and

output circuitry configured to provide the first voltage as an output voltage in the event the first voltage is greater than the second voltage, and to provide the second voltage as the output voltage in the event the second voltage is greater than the first voltage.

Claim 22 (original): A method of operating a power selection circuit usable with a plurality of voltage sources, comprising the steps of:

comparing a first voltage provided by a first voltage source with a second voltage provided by a second voltage source by a comparator, the first and second voltages being provided with hysteresis having a predetermined magnitude;

setting the magnitude of the hysteresis by a band-gap reference;

in the event the first voltage is greater than the second voltage, providing the first voltage as an output voltage by output circuitry; and

in the event the second voltage is greater than the first voltage, providing the second voltage as the output voltage by the output circuitry.

Claim 23 (currently amended): A power selection circuit for use with a plurality of voltage sources, comprising:

a comparator configured to compare a first voltage provided by a first voltage source with a second voltage provided by a second voltage source;

control circuitry having only a first and second logic level having each having a fixed voltage level first and second outputs, the control circuitry being configured, in the event the first voltage is greater than the second voltage, to provide said first logic level at the first output and said second logic level at the second output, and, in the event the second voltage is greater than the first voltage, to provide the second logic level at the first output and the first logic level at the second output, the second logic level being opposite to the first logic level, the first and second logic levels being non-overlapping to block cross-conduction of current between the first and second voltage sources through the control circuitry; and

output circuitry configured to provide the first voltage as an output voltage when the first logic level is provided at the first output, and to provide the second voltage as the output voltage when the first logic level is provided at the second output.

Claim 24 (currently amended): A method of operating a power selection circuit usable with a plurality of voltage sources, comprising the steps of:

comparing a first voltage provided by a first voltage source with a second voltage provided by a second voltage source by a comparator;

in the event the first voltage is greater than the second voltage, providing a first logic level at a first output and a second logic level at a second output by control circuitry having only a first and second logic level each having a fixed voltage level;

in the event the second voltage is greater than the first voltage, providing the second logic level at the first output and the first logic level at the second output by the control circuitry, the second logic level being opposite to the first logic level, the first and

second logic levels being non-overlapping to block cross-conduction of current between the first and second voltage sources through the control circuitry; and

providing the first voltage as an output voltage when the first logic level is provided at the first output and providing the second voltage as the output voltage when the first logic level is provided at the second output by output circuitry.

Claims 25 and 26 (cancelled)